



U.S. ENVIRONMENTAL PROTECTION AGENCY

October 2001

EPA Issues Draft Temperature Guidance

Region 10 of the U.S. Environmental Protection Agency (EPA) is seeking comments from the public on its draft guidance for developing water quality standards for temperature that protect native salmonids (salmon, steelhead, bull trout and cutthroat trout) in the Pacific Northwest.

This draft guidance is a result of a two-year initiative involving Northwest states, tribes, and other federal agencies to gather and review information about the relationship between the temperature of rivers and streams and the health of salmon.

EPA's goal is for the states and tribes in the Pacific Northwest to use the final guidance when developing or revising their own temperature standards. If the states and tribes adopt standards consistent with the guidance, EPA Region 10 will be able to expedite the Clean Water Act approval process and the Endangered Species Act consultation for the standards.

The draft guidance can be obtained on EPA's website: www.epa.gov/r10earth/water.htm or by calling EPA's Public Environmental Resource Center 1-800-424-4372.

Public Workshops

EPA is hosting four public workshops during the comment period so that people can learn more about the draft guidance and provide oral comments for the record.

November 28, 2001 6 - 9 pm

Dept. of Ecology
1315 West 4th
Kennewick, WA

December 4, 2001 1 - 5 pm

Oregon Employment Dept.
Auditorium
875 Union Street NE
Salem, OR

December 5, 2001 1 - 5 pm

Rowe Six
Attorney General Conference Room
4224 6th Avenue S.E.
Lacey, WA

December 6, 2001 1 - 5 pm

Idaho Dept. of Environmental Quality
Conference Rooms C/D
1410 North Hilton Street
Boise, ID

Public Comment Period

EPA will accept public comments on the draft guidance from **October 31 - December 21, 2001.**

Send or e-mail comments to:
John Palmer
EPA Region 10
1200 6th Avenue
Seattle, WA 98101
palmer.john@epa.gov

In general, EPA's guidance attempts to answer two fundamental questions:

- 1) What water temperatures are needed in Northwest rivers and streams in order to protect salmonids?
- 2) How much cold water is needed and where and when should it occur in order to support sustainable salmonid populations?

In addition, the guidance is intended to maintain water temperatures that currently meet the biological needs of salmonids and to reduce water temperatures in areas that have been degraded.

While EPA intends to recommend that states and tribes adopt temperature standards consistent with the final guidance, they may choose to adopt different standards as long as they can demonstrate that their standards protect salmonids.

The Challenge: Salmon Have Complex Temperature Needs

Cold, clean water is critical to the protection of threatened and endangered salmonids. While many factors have contributed to the decline of native salmonid populations in the Northwest, elevated water temperature due to human activities has played an important role. Temperature can affect salmonids directly and indirectly in combination with other things such as habitat loss and disease. With the recent ESA listings of some Northwest salmonids, it has become increasingly important that current standards for water temperature are sufficiently protective of these fish.

Setting standards for temperature is challenging because salmonids have complex life cycles and they require different water temperatures at different times during their lives. In addition, historically rivers and streams in the Northwest

had diverse temperature patterns. We know that temperatures were never optimal for salmonids in all places at all times. However, we know there was sufficient cold water where and when fish needed it. The challenge is to develop a standard that meets the biological needs of the fish while recognizing the naturally diverse temperature patterns in Northwest rivers and streams.

EPA's Draft Guidance

The draft guidance describes a process that states and tribes can use to develop temperature standards that meet the biological needs of salmonids and reflects the natural potential of rivers and streams to achieve certain temperatures. The guidance calls for states and tribes to develop customized temperature standards for individual sub-basins (e.g., Chehalis, John Day, Walla Walla or Clearwater River drainages). This process would include the use of historic information, biological information about salmon and computer modeling.

Because it will take some time to develop temperature requirements for individual sub-basins, EPA also recommends states and tribes adopt specific temperature thresholds to be used as state-wide standards until sub-basin-specific standards are developed. These thresholds would protect salmonids at each of their critical life cycle stages (i.e., spawning, migration, rearing) and would apply at the time of year and at the locations where these life cycle stages occur. These recommended temperatures standards are set at levels to avoid most or all adverse effects on salmonids. Once a sub-basin standard is developed, it would replace the state-wide standards in that sub-basin.

In addition, EPA recommends that states and tribes adopt a provision which allows facilities with discharge permits flexibility in how they meet the state-wide standards. For example, if a facility is unable to meet the state-wide standards at the point of discharge, it would be allowed to take measures to reduce temperatures elsewhere

in the watershed. This would be allowed in cases where a facility has taken all feasible steps to reduce the temperature at the point of discharge. EPA also recommends that states and tribes adopt a provision for the protection of waters that are currently colder than the temperature standards. Under this provision, any new or existing source that increases river temperatures would need to reduce temperatures by an equal amount elsewhere in the watershed. EPA also recommends that no temperature increases would be allowed for waters designated as ecologically significant.

What Happens Next

After reviewing and considering all comments from the public, EPA will prepare a written response to comments and will finalize the guidance in the first quarter of 2002. When states and authorized tribes revise or adopt their temperature standards they will have a separate public review process. During this process, the states and tribes may choose to adopt EPA's recommendations in the guidance or develop alternative temperature standards.

Background

The Clean Water Act requires states and authorized tribes to establish water quality standards and for EPA to review and approve or disapprove those standards. When EPA approves standards that may affect threatened and endangered species, it must consult with the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service.

In 1996, Oregon revised its water temperature standard and submitted it to EPA for approval. EPA approved Oregon's standard in 1999, but during the review process, EPA, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service raised concerns that the standard would not fully protect all life stages of threatened and endangered salmonids. To address these concerns, EPA Region 10 started a process to develop regional temperature guidance that would be protective of salmonids.

To assist in the development of this guidance, EPA Region 10 established technical and policy

workgroups with representatives from the National Marine Fisheries Service, US Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Idaho Department of Environmental Quality, Washington Department of Ecology, Oregon Department of Environmental Quality, the Columbia River Inter-Tribal Fish Commission, and the Nez Perce Tribe. Please note that while these organizations participated in work groups, they do not necessarily endorse EPA's draft guidance.

As part of developing the scientific foundation for the guidance, the technical work group produced five Technical Issue Summaries covering key aspects of water temperature and salmonids. The full, peer-reviewed text of the Technical Issue Summaries, as well as an overall synthesis paper are available on EPA's website: www.epa.gov/r10earth/water.htm.

For More Information

You can contact EPA Staff:

Dru Keenan, 206-553-1219,
E-mail: keenan.dru@epa.gov.

John Palmer, 206-553-6521,
E-mail: palmer.john@epa.gov.

